



City of Austin Integrated Solid Waste Management Master Plan

**Net Meeting - Tuesday, November 9th
Needs Assessment Technical Memorandum Overview**

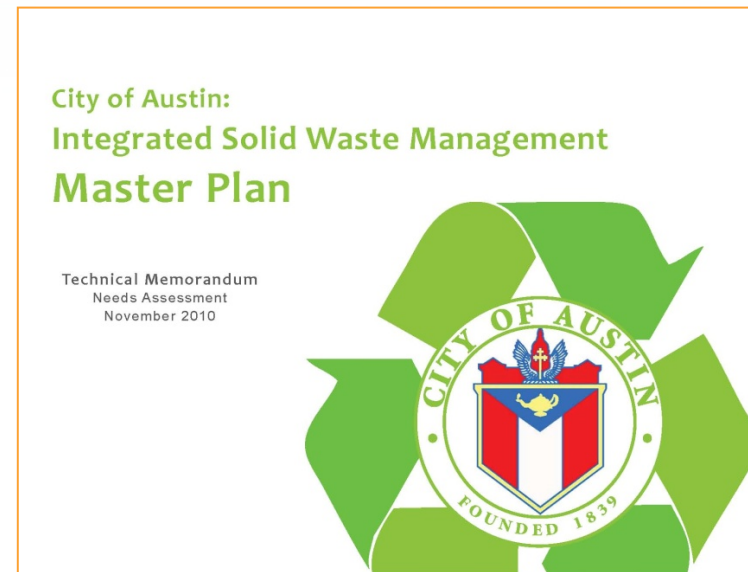
Net meeting agenda

Net meeting goals

- Review major findings of the Tech Memo
- Review Table of Contents and structure of the Tech Memo to aid review

Issues to be covered today

- Where we are in the planning process
- Needs Assessment Tech Memo
 - System overview
 - Evaluation of initiatives
 - Recommendations
 - Policy and program costs
 - Facility costs
- Workshop/Charrette Process – November 16th and 17th

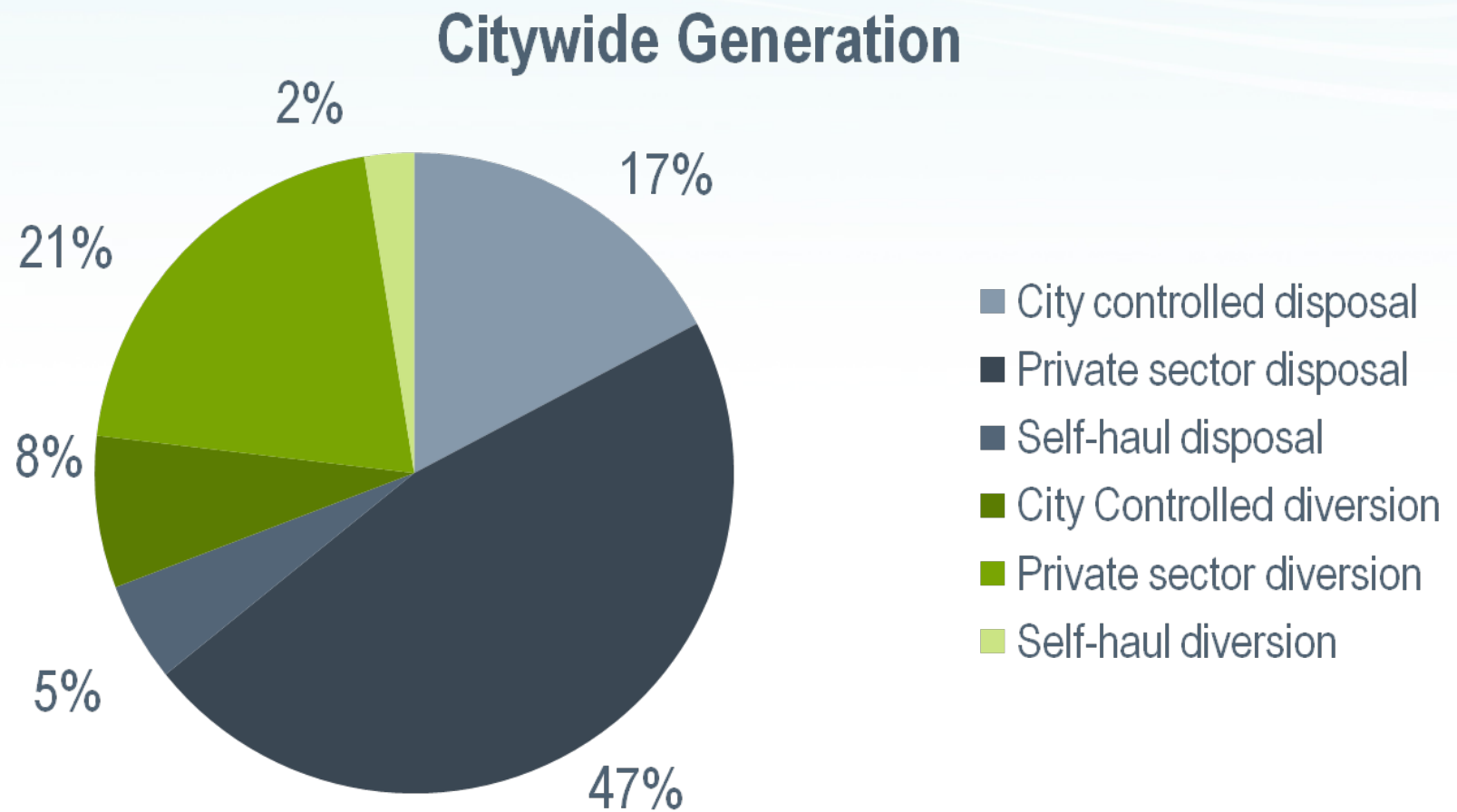


Where we are in the planning process

- Zero waste strategic plan 2008
- Master plan scoping meetings – summer 2009
- Preliminary research workshop – August 2010
 - Private Sector Assessment
 - Methods for Improving Local Markets
- Needs assessment workshop/charrette – November 2010
 - System overview
 - Evaluation of initiatives
 - Recommendations
- Draft Master Plan – March 2011
 - Financial and funding plan
 - Implementation plan



Systems overview



Based on City data and statewide generation estimates

Evaluation of initiatives

30 existing initiatives, including: 28 new initiatives, including:

- Zero waste strategic plan
- Green events
- Construction and demolition debris recycling
- Household hazardous waste collection
- WasteSMART and Waste Reduction Assistance program
- Long-term composting facilities and services
- Transfer station requirements
- New green events ordinance
- Changes to the rate structure
- Yard trimmings collection modifications
- Litter Abatement Division collection modifications
- New eco-industrial parks
- New materials recovery facilities
- New solid waste facilities and technologies

Policy and program recommendations

- **New recycling ordinance**

- Include all generators
- Provide social marketing, education and enforcement
- Include all recyclables and compostable materials
- Phase organics out of landfills

- **New green events ordinance**

- Require all events to recycle and compost
- Provide technical assistance
- Refer event organizers for events that are not City-sponsored to private sector service providers



Policy and program recommendations (cont.)

- **Additions to recycling & reuse services**
 - Increase frequency of collection
 - Add materials
 - Expand to all City customers
- **Construction & demolition debris recycling**
 - Require all loads to be processed
- **Household hazardous waste collection**
 - Provide on-call door-to-door pickup
 - Consider co-locating HHW facility at a future north area resource recovery park or City yard
- **New composting incentive program**
 - Expand pilot, targeting 10% of all customers

Policy and program recommendations (cont.)

- **Partnerships with other City departments**
 - Form inter-departmental green team
 - Facilitate partnerships and cooperation
 - Include City facilities in mandatory recycling ordinance
- **Yard trimmings collection modifications**
 - Provide collection carts
 - Add food scraps and compostable paper
 - Expand to all City customers
- **Litter Abatement Division collection modifications**
 - Transition to on-call bulk item collection
 - Partner with non-profits for repair and reuse
 - Provide recycling bins adjacent to litter cans

Policy and program recommendations (cont.)

- **Customer incentives to reduce waste**
 - Pilot recycle bank
 - Pilot social marketing campaigns
 - Invest in “culture change” outreach and education campaigns
- **Product bans or other EPR initiatives**
 - Provide staff support to Texas Product Stewardship Council
 - Consider local bans (non-recyclable/non-compostable takeout containers, single-use bags)
 - Consider local takeback requirements (pharmaceuticals, sharps)

Policy and program costs

Initiative	Staffing Needs	Staffing Costs	Other Program Costs	Total Annual Costs
New recycling ordinance	11	\$581,000	\$124,000	\$705,000
New green events ordinance	0.5	\$52,000	\$500	\$42,500
Additional recycling and reuse services			\$2,760,000	\$2,760,000
C&D debris recycling	2	\$137,000		\$137,000
Household hazardous waste collection			\$1,100,000	\$1,100,000
New composting incentive program			\$285,000	\$285,000
Employee & equipment service center			\$120,000	\$120,000
Partnerships with other city departments	0.5	\$42,000		\$42,000
Yard trimmings collection modifications			\$2,856,000	\$2,856,000
Litter Abatement Division collection modifications	1	\$44,000	\$73,000	\$117,000
Customer incentives to reduce waste			\$1,600,000	\$1,600,000
Product bans or other EPR initiatives	1.5	\$106,000	\$15,000	\$121,000
Total	16.5	\$962,000	\$8,933,500	\$9,895,500

Facility recommendations

- **Clean Material Recovery facility**
 - Enter into long-term contracts for City-controlled tons
 - Support development of multiple facilities
- **Construction & Demolition facility**
 - Certify private facilities pursuant to C&D ordinance requirements
- **Composting facility**
 - Pursue expansion of acreage and materials accepted at Hornsby Bend
 - Enter into long-term contracts with private facilities
- **Mixed materials processing facility**
 - Consider supporting future development for City-controlled tons

Facility recommendations (cont.)

- **Resource recovery park**

- Support co-location of resource recovery parks at private facilities and existing City facilities
- Develop basis of design

- **Bulk item receiving facility**

- Use existing City facilities



Facility needs

Facility Type	Tons Per Year		Tons Per Day		Average TPD	New facilities needed		Net New Facilities Needed
	Min	Max	Min	Max		Min	Max	
Single Stream MRF	244,000	569,000	800	1,900	800	1	2	0
C&D Facility	34,000	83,000	100	300	500	0	1	0
Composting Facility - combination of aerobic & anaerobic facilities	332,000	779,000	1,100	2,600	1,000	1	3	0
Mixed Material Processing Facility	148,000	340,000	500	1,100	500	1	2	2
Resource Recovery Parks	75,000	173,000	300	600	200	2	3	1
Bulk Item Receiving Facility	300	800	1	3	5	0	1	0
Disposal capacity for residual waste	212,000	480,000	700	1,600	3,000	0	1	0

Facility costs

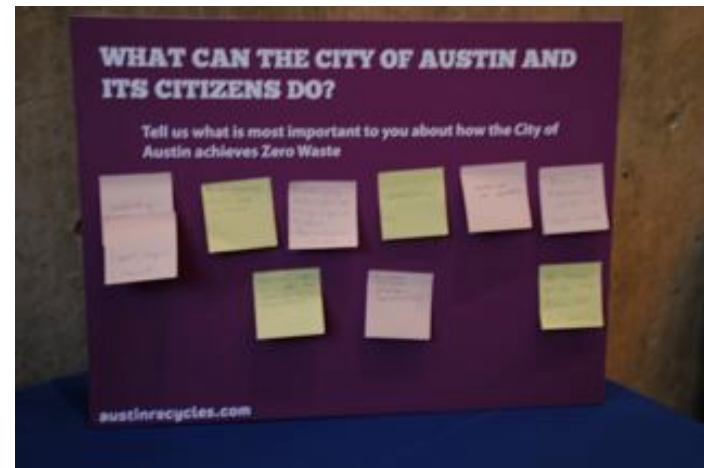
Facility Type	Assumed Daily Ave Incoming Tonnage (tons/day)	Estimated Capital Cost	Estimated Total Tip Fee (\$/ton)	Estimated Net Tip Fee (\$/ton)
				Deducting revenues for recyclables, usually net positive revenues of about \$5 to \$20 per ton
Single stream MRF	800	\$35 to \$55 million	\$65 to \$85	\$5 to \$20 per ton
C&D facility	500	\$5 to \$25 million	\$60 to \$80	\$35 to \$45
Composting facility - aerobic	1,000	\$10 to \$15 million	\$40 to \$60	\$30 to \$50
Composting facility - anaerobic	500	\$150 to \$200 million	\$100 to \$130	\$75 to \$100
Mixed material processing facility	500	\$25 to \$50 million	\$50 to \$75	\$35 to \$60
		Up to \$10 million depending upon the design & what functions are included	Varies on the operation and different functions and commodities handled	Could be net revenues for some materials and net fees on other; it depends on the function & commodity
Resource recovery parks	200			
Bulk item receiving facility	n/a	n/a	n/a	n/a

Diversion by initiative

Initiative	Tons	Percent Diversion
New recycling ordinance	285,600	19.8%
Changes to the rate structure	153,400	10.6%
Additions to recycling and reuse services	40,100	2.8%
Add materials to blue bin		
Provide carts for recycling		
Provide carts for yard trimmings/organics		
Collecting recyclables weekly instead of bi-weekly		
C&D debris recycling	34,200	2.4%
New composting incentive program	200	0.0%
Resource recovery parks	75,300	5.2%
Mixed material processing	148,100	10.2%
Yard trimmings collection operations modifications		
Add food scraps	6,000	0.4%
Litter Abatement Division collection operations modifications	300	0.0%
SWS Department new personnel policies	800	0.1%
Customer incentives to reduce waste	19,800	1.4%
Product bans and other EPR	24,100	1.7%
Sub-total	787,900	54.5%
Existing Diversion	445,300	30.8%
Total Diversion	1,233,200	85.3%

Workshop 2 - Tuesday, November 16th

- Recap of findings from Needs Assessment Tech Memo
- Review of regional infrastructure
- Q&A
- Identification of issues to be discussed in small groups on Wednesday, November 17th



Charrette Process - Wednesday, November 17th

Daytime meetings

- Meet in small groups to have focused discussion on specific initiatives
- Sign up for specific subjects
 - Discuss policy and program recommendations
 - Discuss facility needs and recommendations
 - Discuss program and facility costs
- Provide feedback to City

Evening recap

- Report back from City on stakeholder feedback and modifications to recommendations

Other opportunities for feedback

- Provide comments via email at swsmasterplan@ci.austin.tx.us

Thank you!

For more information on Austin Zero Waste:
www.ci.austin.tx.us/sws/zerowaste.htm

